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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,985	11/20/2003	Haruhusa Taniguchi	ADI-097	8149

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EXAMINER

MUSSER, BARBARA J

ART UNIT PAPER NUMBER

1733

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,985

Applicant(s)

TANIGUCHI ET AL.

Examiner

Barbara J. Musser

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 July 2005.
- 2a) This action is FINAL.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-32 is/are pending in the application.
 - 4a) Of the above claim(s) 6,7,24 and 32 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-5,8-23 and 25-31 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 - 1) Certified copies of the priority documents have been received.
 - 2) Certified copies of the priority documents have been received in Application No. _____.
 - 3) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/9/04
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

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DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of the restriction in the reply filed on 7/1/05 is acknowledged. The traversal is on the ground(s) that searching the article and method would not impose a serious burden on the examiner. This is not found persuasive because the method and article are located in different classes and that the article can be made by a different method such as by forming one to the size of a section of the ball and forming the other to a size larger than that section of the ball.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is unclear whether the two layers are intended to be formed and then joined together or not since in claim 1 they appear to be separate steps, but claim 6 indicates one layer is formed on the other layer. For the purposes of examination, it is assumed that one layer can be made on the other layer.

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Regarding claim 16, it is unclear what is meant by cutting the first material into a two-dimensional section since claim 1 indicates it is formed in three-dimensions. For the purposes of examination, this is assumed to mean that the first material is cut into a desired shape.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 9, 11, 12, 25, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 1-265979.

JP 1-265979 discloses forming a ball by forming a bottom layer(panel, 7) and forming a top layer(protective layer, 8).. Since the bottom layer is injection molded against the top layer, it is connected to it. Since the layers are intended to be attached to the surface of a ball, they substantially correspond to a section of the surface of the ball. It is noted the claim does not require the panels to be curved, simply that they have three dimensions, which all real objects have.

Regarding claim 11, the top and bottom layers are connected via an adhesive(17).

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Regarding claim 12, since the bottom layer is formed by injection molding against the top layer, it would be substantially free of stress at the bond line since the bottom layer was fluid when the bonding occurred.

Regarding claim 30, JP 1-265979 discloses the ball is made of rubber, an elastic material.(Oral translation.)

6. Claims 1, 8, 9, 18, 19, 22, 23, 25, and 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Ou(U.S. Patent 6,206,795).

Ou '795 discloses forming a panel for a basketball by bonding together a foam layer and cover layer, both layers corresponding substantially to a section of the surface of the ball.(Figure 4)

Regarding claim 8, Ou '795 discloses the layers are bonded together, indicating they are formed independently of one another.(Col. 3, ll. 58-59)

Regarding claim 9, Ou '795 discloses the two layers are substantially the same size.(Figure 4)

Regarding claims 18 and 19, Ou '795 discloses the foam layer can be polyurethane or ethylene vinyl acetate.(Col. 3, ll. 36-38)

Regarding claims 22 and 23, Ou '795 discloses attaching a lining cloth to the inner surface of the foam layer.(Figure 4; Col. 3, ll. 64)

Regarding claims 25 and 29-31, the edges of the panels are interconnected to form a cover for the ball.(Figures 2 and 4) It is noted that the claim does not require the edges of the panels to contact each other.

Regarding claim 29, since the cover layers are preforms, they are self-supporting structures.

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Regarding claim 30, the bladder is made of rubber.(Col. 3, ll. 1-3)

Regarding claim 31, since the panels have a stronger curvature than the ball to which they are applied(Figure 4), they have a radius of curvature while not under load which is less than the radius of curvature of the ball when inflated.

7. Claims 1, 9, 18, 19, 22, 25, 29, and 30 are rejected under 35

U.S.C. 102(b) as being anticipated by Ou(U.S. Patent 5,772,545).

Ou '545 discloses forming a ball by forming panels by joining a foam layer and a cover layer together and then interconnecting the edges of the panels to form an outer layer surrounding an inflatable bladder.(Figures 5 and 7)

Regarding claim 9, Ou '545 discloses the foam layer is substantially the same size as the cover layer.(Figure 5)

Regarding claims 18 and 19, Ou '545 discloses the foam layer can be polyurethane or ethylene vinyl acetate.(Col. 6, ll. 8-10)

Regarding claim 22, Ou '545 discloses attaching a lining cloth to the inner surface of the foam layer.(Figure 5)

Regarding claim 29, since the cover layers are preforms, they are self-supporting structures.

8. Claims 1, 21, and 25-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Shishido et al.(WO 99/15242) U.S. Patent 6,302,815 is considered an English language translation and all column and line numbers refer thereto.

Shishido et al. discloses forming a ball by forming a multitude of panels from several layers which are dimensioned to correspond to a section of the

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surface of the ball, applying a skeletal frame to a rubber bladder, and adhesively bonding the panels to the frame and bladder.(Col. 2, ll. 50-60; Col. 6, ll. 35-45; Figure 1)

Regarding claim 21, several of the layers forming the panels are fabric, and fabrics are considered to be meshes since air and particles can pass through them.(Col. 6, ll. 35-45)

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ou '795 as applied to claim 1 in paragraph 5 above, and further in view of Giesen et al.(U.S. Patent 5,624,517).

The reference discloses as taught above but does not disclose forming the cover layer by forming it on the foam layer. Giesen et al. discloses deep drawing a film to form it against a foam layer.(Figure 3; Col. 2, ll. 4-17) It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the cover layer of Ou '795 on the foam layer by deep-drawing the cover layer onto the foam layer as shown by Giesen et al. since it is often difficult to

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apply adhesive uniformly and homogeneously and this process avoids this drawback,(Col. 1, ll. 30-35, 38-40)

11. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ou '795 as applied to claim 1 in paragraph 5 and further in view of Boutle(U.S. Patent 4,157,424) and GB 1,095,969.

Ou '795 discloses the cover layer can be an artificial leather such as polyurethane.(Col. 2, ll. 252-6) but does not disclose the polyurethane is a thermoplastic elastomer. Boutle discloses that polyurethanes used as artificial leather are preferably thermoplastic elastomers.(Col. 2, ll. 33-43) GB 1,095,969 discloses that it is known to make ball covers from elastomeric materials.(Pg. 1, ll. 71-75) It would have been obvious to one of ordinary skill in the art at the time the invention was made that the polyurethane of Ou '795 was a thermoplastic elastomer since Boutle discloses that polyurethanes used as artificial leather are preferably thermoplastic elastomers(Col. 2, ll. 33-43) and since GB 1,095,969 discloses that it is known to use elastomeric materials as the covers for balls.

12. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ou '795 as applied to claim 1 in paragraph 5.

Ou '795 discloses as stated above, but does not explicitly state the foam is vulcanized prior to bonding. However, one in the art would appreciate that since the foam is a preform prior to bonding, it would have been obvious to vulcanize it prior to bonding so that only the foam layer would be subjected to the high heat necessary for vulcanization. It would have been obvious to one of ordinary skill in the art at the time the invention was made to vulcanize the foam layer prior to

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bonding it to the cover layer so that the cover layer would not be subjected to the high temperatures necessary for vulcanization.

Regarding claim 21, while the foam layer can be considered the second material, the lining cloth can alternatively be considered the second layer since it is connected to the cover layer via the intervening foam layer. The lining cloth is made of fabric, and fabric is conventionally considered to be a mesh since it has openings through which small particles and air can travel.

13. Claims 5, 10, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 1-265979 as applied to claims 1 and 25 in paragraph 4 above.

The reference discloses as stated above, but does not explicitly state how the top layer is pressed against the mold surface as shown in Figure 5.

However, it is well-known and conventional in the molding arts to force a substrate against a mold surface prior to injection molding to insure the sheet is properly placed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to deep draw or vacuum form the top layer in Figure 5 since it is well-known and conventional in the molding arts to force a substrate against a mold surface prior to injection molding to insure the sheet is properly placed.

Regarding claim 26, while JP 1-265979 does not explicitly disclose using an adhesive to bond the panels to the ball, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an adhesive to

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bond the panels to the ball since the use of adhesives to bond materials together is extremely well-known and conventional in the bonding arts.

Regarding claim 27, a thread layer(11) and a lining(10) are located between the panels and the ball. One in the art would appreciate that such materials would act as a reinforcing layer.

14. Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 1-265979 as applied to claim 1 in paragraph 4 above, and further in view of Ou '795, Boutle, and GB 1,095,969.

The reference discloses as stated above, but does not disclose the material the cover layer is made of. Ou '795 discloses that cover layers are conventionally made of artificial leather to look like real leather(Col. 2, ll. 25-26) but does not disclose the polyurethane is a thermoplastic elastomer. Boutle discloses that polyurethanes used as artificial leather are preferably thermoplastic elastomers.(Col. 2, ll. 33-43) GB 1,095,969 discloses that it is known to make ball covers from elastomeric materials.(Pg. 1, ll. 71-75) It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the cover layer of JP 1-265979 of a material used to make artificial leather since Ou '795 discloses artificial leather is conventionally used to cover game balls and that the polyurethane of Ou '795 was a thermoplastic elastomer since Boutle discloses that polyurethanes used as artificial leather are preferably thermoplastic elastomers(Col. 2, ll. 33-43) and since GB 1,095,969 discloses that it is known to use elastomeric materials as the covers for balls.

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Regarding claim 15, while JP 1-265979 does not disclose the cover layer is transparent, the printing(5) is located beneath the cover layer and one in the art would appreciate that in order for the printing to be seen, the cover layer would need to be transparent. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the cover layer of JP 1-265979 transparent so that the printing could be seen.

Regarding claim 16, the printing is on the inside of the cover layer(Figure 6). Since the cover layer is clearly cut between Figure 5 and Figure 2, one in the art would appreciate that the cover layer is cut into a desired shape.

Regarding claim 17, while JP 1-265979 does not disclose precisely how the printing is applied to the cover layer, a well-known and conventional method of applying a pattern is by depositing the imaging material on the surface. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the pattern on the surface of the cover material by depositing the imaging material on the surface since this is a well-known and conventional method of applying an image to a surface.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara J. Musser whose telephone number is (571) 272-1222. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571)-272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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